

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

ORDER NO. 79-116

WASTE DISCHARGE REQUIREMENTS FOR:

CITY OF PALO ALTO
CLASS II-2 SOLID WASTE DISPOSAL SITE
PALO ALTO, SANTA CLARA COUNTY

The California Regional Water Quality Control Board, San Francisco Bay Region, (hereinafter called the Board) finds that:

1. The Board adopted Order No. 75-55 prescribing waste discharge requirements for the City of Palo Alto's Solid Waste Disposal Site, hereinafter called the discharger, on August 19, 1975. This Order was amended by two Orders adopting revised compliance time schedule pertaining to 100 year flood protection, Order Nos. 77-3 and 77-154. The site is now in compliance with Order 75-55 and 77-154.
2. The City of Palo Alto submitted an updated Technical Report of Waste Discharge in June, 1979 and a supplemental letter on August 10, 1979. The report included closure plans in compliance with Resolution No. 77-7. The landfill is scheduled for closure during the next twenty years, with the exact date dependent on the development of alternative technology for refuse disposal. Future use of this site will be passive recreation in conjunction with Byrbee Park.
3. The 150 acre landfill is located on former salt marsh along the southwestern edge of San Francisco Bay southeast of the Highway 101 and Embarcadero Road interchange as shown on Attachment A which is attached hereto and made a part of this Order. The City has owned and operated the Class II-2 site for approximately 50 years and receives both group 2 (household refuse) and group 3 (inert) wastes. Surface waters bordering the site include Mayfield Slough on the east and Matadero Creek on the south which separate the site from a flood basin. A marsh area and yacht harbor lie to the north.
4. The site is underlain by poor quality semi-perched groundwaters within the uppermost 30 feet which occur in random, isolated and discontinuous thin lenses of somewhat pervious sediments which are interspaced in clays. A poor quality shallow aquifer is separated from this zone by lighter clay deposits. A usable aquifer lies approximately 200 feet below the site and is adequately protected by a 40-80 foot thick clay aquiclude. The closest active fault, the San Andreas, is $8\frac{1}{2}$ miles west of the site and there are two inactive faults near the site.
5. The beneficial uses of Mayfield Slough, Matadero Creek and San Francisco Bay in the area of this site are:

Recreation
Navigation
Habitat for waterfowl
Wildlife habitat
Aesthetic enjoyment

6. The area within 1000 feet of the site includes a flood basin, a slough and creek, a transmitting facility and the City's wastewater treatment plant and yacht harbor.
7. The disposal site meets the criteria contained in the California Administrative Code, Title 23, Chapter 3, Subchapter 15, for classification of the site as a Class II-2 disposal site suitable to receive group 2 and 3 wastes.
8. Engineering Science, Inc., proposed a final Environmental Impact Report for the City of Palo Alto in 1975 in accordance with the California Environmental Quality Act (Public Resources Code Section 2100 et. seq.). The report indicated that the project will cause a significant effect on the environment in that the presence of a landfill and landfill activity may degrade water quality. The Waste Disposal Specifications, Leachate and Drainage Specifications and Provisions of this Order will mitigate this adverse impact. The Self-Monitoring Program instituted in October, 1977, will provide adequate warning of any lateral movement of leachate into surface waters.
9. The Board adopted a Water Quality Control Plan for the San Francisco Bay Basin in April 1975 and this Order implements the water quality objectives stated in that plan.
10. The Board has notified the discharger and interested agencies and persons of its intent to prescribe waste discharge requirements for the discharge and has provided them with an opportunity for a public hearing and an opportunity to submit their written views and recommendations.
11. The Board, in a public meeting, heard and considered all comments pertaining to the discharge.

IT IS HEREBY ORDERED that the City of Palo Alto and any other persons that shall own the land or operate this landfill shall comply with the following:

A. Waste Disposal Specifications

1. The disposal of waste shall not cause pollution or a nuisance.
2. Wastes shall not be disposed of at any position where they can be carried from the disposal site and discharged into waters of the State.
3. Group 2 wastes shall not be placed in or allowed to contact ponded water from any source whatsoever.
4. Sewage sludge or high moisture content group 2 wastes shall not be discharged at this site unless authorized in writing by the Executive Officer of this Board.
5. Group 1 waste shall not be stored or deposited at this site.
6. The discharger shall remove and relocate any wastes which are discharged at this site in violation of these requirements.

B. Leachate and Drainage Specifications

1. Leachate from group 2 wastes or ponded water containing leachate or in contact with refuse shall not be allowed to leave the site or be discharged into waters of the State.
2. All necessary facilities shall be provided to protect useable groundwaters from degradation as a result of leachate discharge or carbon dioxide migration.
3. Water used during site operation shall be limited to an amount necessary and sufficient for dust-control and fire suppression.
4. Disposal area(s) shall be protected from any washout or erosion of wastes or covering material, and from inundation, which could occur as a result of floods having a predicted frequency of once in 100 years.
5. Surface drainage from tributary areas, and internal site drainage from surface or subsurface sources shall not contact or percolate through group 2 wastes deposited on the site.
6. Vertical and lateral hydraulic continuity with ground or surface waters shall be prevented by the presence of a natural clay barrier surrounding the area which is keyed into impermeable substrata and has a thickness of at least five feet and a permeability of 1×10^{-6} cm/sec or less or equivalent. If such a natural condition does not exist, an artificial barrier shall be constructed to meet the above specifications.
7. The exterior surfaces of the disposal area shall be covered and graded to promote lateral runoff of precipitation and to prevent ponding.
8. The migration of methane gas from group 2 waste shall be controlled as necessary to prevent creation of a nuisance.

C. Site Closure Specifications

1. The solid waste disposal site shall continue to be operated and closure completed in accordance with the closure plan cited in Finding 2 of this Order. This plan includes specifications for final cover, compaction, grading, flood protection, drainage, slope stability and groundwater, leachate and methane gas monitoring wells.

D. Provisions

1. The discharger shall comply with all sections of this Order immediately upon its adoption.

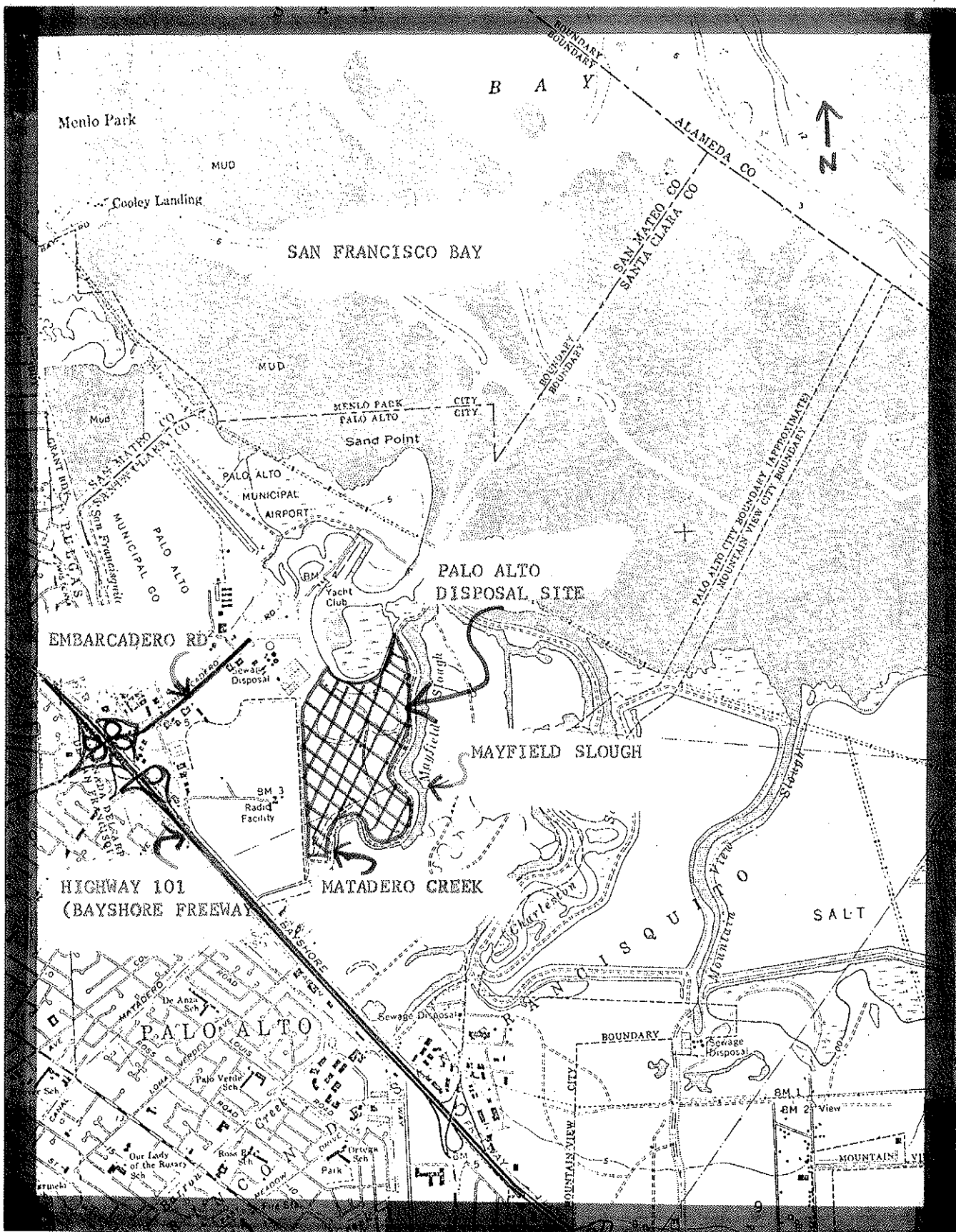
2. The discharger shall operate under the general conditions of the closure plan noted in Finding 2 and closure specification C.1. One year prior to the estimated closure date for any section of the landfill (A, B, or C as shown on Attachment B), the discharger shall submit a status report of compliance with C.1. and a time schedule for completing closure of that section of the site in conformance with the closure plan and Resolution 77-7.
3. The discharger shall insure that slope stability of this site is maintained under conditions generated during a maximum probable earthquake. To minimize the risk of instability leachate levels shall be lowered by pumping if they exceed elevation 15 feet above the bottom of the fill within a 100 foot horizontal setback from the outer top crest of the slope.
4. Final park design plans for each portion of the landfill as shown on Attachment B shall be submitted to the Board for review of surface drainage and erosion controls prior to their implementation. Types and locations of vegetation to be used for erosion control shall be described in detail.
5. Any technical reports or time schedules required at anytime by this Board shall be prepared by a certified engineering geologist or registered engineer and submitted by the discharger.
6. The discharger shall maintain a copy of the Order at the site so as to be available at all times to site operating personnel.
7. The discharger shall file with this Board a report of any material change or proposed change in the character, location, quantity or closure plan of this waste discharge. For the purpose of these requirements, this includes but is not limited to any proposed change in the boundaries, contours or ownership of the disposal area.
8. This Board considers the property owner to have a continuing responsibility for correcting any problems which may arise in the future as a result of this waste discharge or water applied to this property during subsequent use of the land for other purposes.
9. The discharger shall file with the Board technical reports on self-monitoring work performed according to the detailed specifications contained in any Monitoring and Reporting Program which may be directed by the Executive Officer.
10. The discharger shall permit the Regional Board:
 - a. Entry upon premises on which waste are located or in which any required records are kept,
 - b. Access to copy any records required to be kept under terms and conditions of this Order,
 - c. Inspection of monitoring equipment or records, and
 - d. Sampling of any discharge.

11. This Board's Order Nos. 75-55 and 77-154 are hereby rescinded.

I, Fred H. Dierker, Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region, on September 18, 1979.

FRED H. DIERKER
Executive Officer

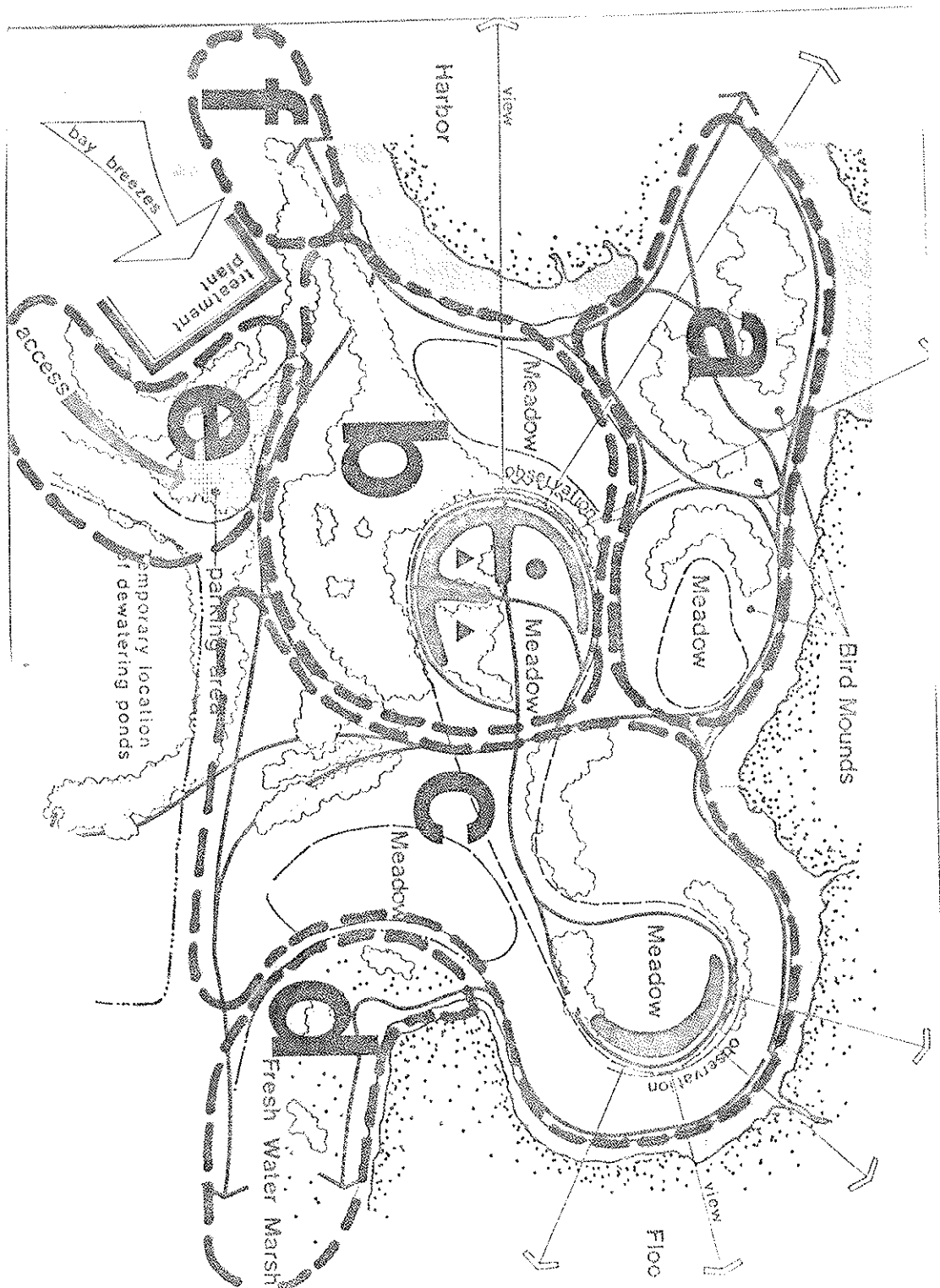
Attachments:
A and B



STATE OF CALIFORNIA
REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

CITY OF PALO ALTO
CLASS 11-2 SOLID WASTE DISPOSAL SITE
PALO ALTO, SANTA CLARA COUNTY

ATTACHMENT A ORDER NO. 79-116



**SAN FRANCISCO BAY REGIONAL
WATER QUALITY CONTROL BOARD**

City of Palo Alto
Class II-2 Solid Waste Disposal Site
Palo Alto, Santa Clara County

Attachment B

Order No. 79-116

DRAWN BY:

DATE:

DRWG.NO.